

1. Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method, comprising:

determining the value of a signal, in which N previously detected bits (where N is at least 2) of a demodulated bit stream are used to select which one of a plurality of threshold levels against which the current demodulated bit is to be compared in a bit slicer and is to be updated using ~~the~~ current demodulated bit;

intermittently integrating the demodulated bit stream over at least 2 bit periods;

comparing a result of the integrating with the selected threshold value; and
using the result to update the selected threshold value.

2. (Currently Amended) A method as claimed in claim 1, ~~characterised by~~
~~having further comprising: providing plurality of threshold levels and having P~~ (where P is at least 2) mean estimators associated with each of the threshold levels, and for a selected one of the plurality of threshold levels obtaining ~~the~~ an average value of the associated P mean estimators and using the result as the current selected one of the threshold values.

3. (Cancelled).

4. (Currently Amended) A method as claimed in claim ~~[[3]]1~~, ~~characterised by~~
further comprising: oversampling the demodulated bit stream by a factor M, where M is an integer ~~[[of]]~~ on the order of 20, and intermittently integrating at least one sample in the vicinity of the M/2 sample of each of the at least 2 bit periods to

generate ~~[[the]]~~a demodulated signal to be compared with the selected one of the threshold values.

5. (Currently Amended) A method as claimed in claim ~~[[3]]~~1, ~~characterised by~~
further comprising: selecting at least 2 samples from ~~[[the]]~~a more recent bit period
and at least one sample from ~~[[the]]~~a preceding bit period.

6. (Currently Amended) A method as claimed in Claim ~~[[3]]~~1, ~~characterised by~~
further comprising: oversampling the demodulated bit stream, weighting the samples,
and integrating the weighted samples to generate ~~[[the]]~~a demodulated signal to be
compared with the selected one of the threshold values.

7. (Currently Amended) A method as claimed in claim 1, ~~characterised by~~
further comprising: selecting one of ~~[[a]]~~the plurality of preset default threshold
values in accordance with a bit sequence formed by the N previously detected bits
and ~~[[the]]~~ a latest detected bit as determined by the bit slicer, obtaining a
demodulated signal integrated over at least 2 bit periods, subtracting the
demodulated signal from ~~[[the]]~~one of a plurality of selected preset default values to
produce a dc offset estimate, deriving a mean dc offset estimate from the current dc
offset estimate and a plurality of preceding dc offset estimates, combining the mean
dc offset estimate with a selected threshold value and applying the combined signal
to a threshold input of the bit slicer.

8. (Currently Amended) A method as claimed in claim 7, ~~characterised by~~
further comprising: subtracting the dc offset estimate from the demodulated signal
prior to updating the selected threshold value.

9. (Currently Amended) A method as claimed in Claim 7, ~~characterised by~~
further comprising: adjusting the responsiveness of the mean dc offset estimate with
respect to drift~~[[s]]~~.

10. (Currently Amended) A method of effecting dc offset compensation in a receiver having a variable threshold bit slicer, comprising selecting one of a plurality of preset default ~~n-bit~~threshold values in accordance with a bit sequence formed by ~~the latest~~ a current and (n – 1) earlier bit values as determined by the variable threshold bit slicer, obtaining a demodulated signal integrated over at least 2 bit periods, subtracting the demodulated signal from the selected preset default value to produce a dc offset estimate, deriving a mean dc offset estimate from the current dc offset estimate and a plurality of preceding dc offset estimates, and using the mean dc offset estimate to remove the effects of dc offset in determining the value of a demodulated signal.

11. (Currently Amended) A method as claimed in Claim 10, ~~characterised in that~~ wherein the mean dc offset estimate is combined with a selected threshold value and in that the combined signal is applied to a threshold input of the bit slicer.

12. (Currently Amended) A method as claimed in Claim 10, ~~characterised by~~ further comprising: adjusting the responsiveness of the mean dc offset estimate with respect to drift.

13. (Currently Amended) A receiver having a variable threshold slicer, comprising means for deriving a demodulated bit ~~rate~~-signal, means for storing a plurality of threshold values, each of the plurality of threshold values being selectively adjustable, means for selecting one of the plurality of threshold values for comparison with ~~[[the]]~~a current bit and for adjustment in response to a sequence of N bits (where N is at least 2) received prior to the current bit and means for using the current bit to update the selected threshold value.

14. (Currently Amended) A receiver as claimed in claim 13, ~~characterised in that~~ wherein the means for deriving a demodulated bit ~~rate~~ signal includes a non-

continuous integrate and dump stage for integrating the demodulated bit signal over a predetermined number of bit rate periods and supplying the result to the variable threshold bit slicer and to the means for updating the selected threshold value.

15. (Currently Amended) A receiver as claimed in claim 13, ~~characterised by~~ further comprising: means for oversampling ~~[[the]]a~~ demodulated bit stream by a factor M, where M is an integer of the order of 20, and means for intermittently integrating at least one sample in the vicinity of the M/2 sample of each of at least 2 ~~of the predetermined number of bit rate periods~~ to generate the demodulated signal to be compared with the selected one of the plurality of threshold values.

16. (Currently Amended) A receiver as claimed in Claim 13, ~~characterised by~~ further comprising: means for oversampling ~~[[the]]a~~ demodulated bit stream, means for weighting the samples obtained, and ~~integrating~~ means for integrating the weighted samples to generate the demodulated signal to be compared with the selected one of the plurality of threshold values.

17. (Currently Amended) A receiver as claimed in claim 13, ~~characterised by~~ further comprising: means for selecting one of a plurality of preset default threshold values in accordance with a bit sequence formed by the N ~~previously detected~~ bits and ~~the latest detected~~ a current bit as determined by the variable threshold bit slicer, means for obtaining a demodulated signal integrated over at least 2 bit periods, means for subtracting the demodulated signal from ~~[[the]]a~~ selected preset default value to produce a dc offset estimate, means for deriving a mean dc offset estimate from ~~[[the]]a~~ current dc offset estimate and a plurality of preceding dc offset estimates, and means for combining the mean dc offset estimate with ~~[[a]]the~~ selected one of the plurality of threshold values and for applying the combined signal to a threshold input of the variable threshold bit slicer.

18. (Currently Amended) A receiver as claimed in Claim 17, ~~characterised by~~
further comprising: means for adjusting the responsiveness of the mean dc offset
estimate with respect to drift.